

SEQUENCE LISTING

<110> Wisniewski, Thomas
 Sigurdsson, Einar
 Chabalgoity, Jose Alejandro
 Goni, Fernando

<120> MUCOSAL IMMUNIZATION TO PREVENT PRION INFECTION

<130> 200M536-W00

<160> 32

<170> PatentIn version 3.1

<210> 1

<211> 253

<212> PRT

<213> Homo sapiens

<400> 1

Met Ala Asn Leu Gly Cys Trp Met Leu Val Leu Phe Val Ala Thr Trp
 1 5 10 15

Ser Asp Leu Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn
 20 25 30

Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg
 35 40 45

Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
 50 55 60

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
 65 70 75 80

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His
 85 90 95

Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met
 100 105 110

Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr
 115 120 125

Met Leu Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser Asp
 130 135 140

Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln
 145 150 155 160

Val Tyr Tyr Arg Pro Met Asp Glu Tyr Ser Asn Gln Asn Asn Phe Val
 165 170 175

His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr
 180 185 190

Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg
 195 200 205

Val Val Glu Gln Met Cys Ile Thr Gln Tyr Glu Arg Glu Ser Gln Ala
 210 215 220

Tyr Tyr Gln Arg Gly Ser Ser Met Val Leu Phe Ser Ser Pro Pro Val
 225 230 235 240

Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
 245 250

<210> 2
 <211> 264
 <212> PRT
 <213> Bovine

<400> 2

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala
 1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
 20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
 35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
 50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
 65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His

85

90

95

Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys
 100 105 110

Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala
 115 120 125

Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr Met Leu Gly Ser Ala
 130 135 140

Met Ser Arg Pro Leu Ile His Phe Gly Ser Asp Tyr Glu Asp Arg Tyr
 145 150 155 160

Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln Val Tyr Tyr Arg Pro
 165 170 175

Val Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val His Asp Cys Val Asn
 180 185 190

Ile Thr Val Lys Glu His Thr Val Thr Thr Thr Thr Lys Gly Glu Asn
 195 200 205

Phe Thr Glu Thr Asp Ile Lys Met Met Glu Arg Val Val Glu Gln Met
 210 215 220

Cys Ile Thr Gln Tyr Gln Arg Glu Ser Gln Ala Tyr Tyr Gln Arg Gly
 225 230 235 240

Ala Ser Val Ile Leu Phe Ser Ser Pro Pro Val Ile Leu Leu Ile Ser
 245 250 255

Phe Leu Ile Phe Leu Ile Val Gly
 260

<210> 3

<211> 256

<212> PRT

<213> Deer

<400> 3

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala
 1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
 20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
 35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
 50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
 65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly
 85 90 95

Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met
 100 105 110

Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu
 115 120 125

Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe
 130 135 140

Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr
 145 150 155 160

Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Gln Tyr Asn Asn Gln Asn
 165 170 175

Thr Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val
 180 185 190

Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Met
 195 200 205

Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu
 210 215 220

Ser Glu Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Ser
 225 230 235 240

Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
 245 250 255

<210> 4
 <211> 256
 <212> PRT
 <213> Elk

<400> 4

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala
 1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
 20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
 35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
 50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
 65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly
 85 90 95

Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met
 100 105 110

Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu
 115 120 125

Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe
 130 135 140

Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr
 145 150 155 160

Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Gln Tyr Asn Asn Gln Asn
 165 170 175

Thr Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val
 180 185 190

Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Met
 195 200 205

Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu
 210 215 220

Ser Glu Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Ser
 225 230 235 240

Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
 245 250 255

<210> 5

<211> 256

<212> PRT

<213> Odocoileus hemionus

<400> 5

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala
 1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
 20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
 35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
 50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
 65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly
 85 90 95

Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met
 100 105 110

Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu
 115 120 125

Gly Gly Tyr Met Leu Gly Ser Ala Met Asn Arg Pro Leu Ile His Phe
 130 135 140

Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr
 145 150 155 160

Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Gln Tyr Asn Asn Gln Asn
 165 170 175

Thr Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val
 180 185 190

Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Met
 195 200 205

Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu
 210 215 220

Ser Gln Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Ser
 225 230 235 240

Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
 245 250 255

<210> 6

<211> 254

<212> PRT

<213> Mus musculus

<400> 6

Met Ala Asn Leu Gly Tyr Trp Leu Leu Ala Leu Phe Val Thr Met Trp
 1 5 10 15

Thr Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn
 20 25 30

Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg
 35 40 45

Tyr Pro Pro Gln Gly Gly Thr Trp Gly Gln Pro His Gly Gly Gly Trp
 50 55 60

Gly Gln Pro His Gly Gly Ser Trp Gly Gln Pro Pro Gly Gly Ser Trp
 65 70 75 80

Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His Asn
 85 90 95
 Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Leu Lys His Val Ala
 100 105 110
 Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr Met
 115 120 125
 Leu Gly Ser Ala Met Ser Arg Pro Met Ile His Phe Gly Asn Asp Trp
 130 135 140
 Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr Pro Asn Gln Val
 145 150 155 160
 Tyr Tyr Arg Pro Val Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val His
 165 170 175
 Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr Thr
 180 185 190
 Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg Val
 195 200 205
 Val Glu Gln Met Cys Val Thr Gln Tyr Gln Lys Glu Ser Asp Ala Tyr
 210 215 220
 Tyr Asp Gly Arg Arg Ser Ser Ser Thr Val Leu Phe Ser Ser Pro Pro
 225 230 235 240
 Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
 245 250

<210> 7

<211> 225

<212> PRT

<213> Rattus norvegicus

<400> 7

Gly Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro
 1 5 10 15

Gly Gly Asn Arg Tyr Pro Pro Gln Ser Gly Gly Thr Trp Gly Gln Pro
 20 25 30

His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro
 35 40 45

His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Ser Gln Gly
 50 55 60

Gly Gly Thr His Asn Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn
 65 70 75 80

Leu Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly
 85 90 95

Leu Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Met Leu His
 100 105 110

Phe Gly Asn Asp Trp Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg
 115 120 125

Tyr Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Gln Tyr Ser Asn Gln
 130 135 140

Asn Asn Phe Val His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr
 145 150 155 160

Val Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys
 165 170 175

Met Met Glu Arg Val Val Glu Gln Met Cys Val Thr Gln Tyr Gln Lys
 180 185 190

Glu Ser Gln Ala Tyr Tyr Asp Gly Arg Arg Ser Ser Ala Val Leu Phe
 195 200 205

Ser Ser Pro Pro Val Ile Leu Leu Ile Ser Leu Ile Phe Leu Ile Val
 210 215 220

Gly
 225

<210> 8

<211> 256
 <212> PRT
 <213> Sheep

<400> 8

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala
 1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
 20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
 35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
 50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
 65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly
 85 90 95

Gly Ser His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met
 100 105 110

Lys His Val Ala Gly Ala Ala Ala Gly Ala Val Val Gly Gly Leu
 115 120 125

Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe
 130 135 140

Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr
 145 150 155 160

Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Arg Tyr Ser Asn Gln Asn
 165 170 175

Asn Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val
 180 185 190

Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Ile
 195 200 205

Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu
 210 215 220

Ser Gln Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Ser
 225 230 235 240

Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
 245 250 255

<210> 9
 <211> 256
 <212> PRT
 <213> Goat

<400> 9

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala
 1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
 20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
 35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
 50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
 65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly
 85 90 95

Gly Ser His Ser Asp Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met
 100 105 110

Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu
 115 120 125

Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe
 130 135 140

Gly His Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr

145 150 155 160
 Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Gln Tyr Ser His Gln Asn
 165 170 175
 Asn Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val
 180 185 190
 Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Ile
 195 200 205
 Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu
 210 215 220
 Ser Gln Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Pro
 225 230 235 240
 Pro Pro Val Ile Leu Leu Ile Ser Leu Leu Ile Leu Leu Ile Val Gly
 245 250 255

 <210> 10
 <211> 254
 <212> PRT
 <213> Syrian hamster

 <400> 10
 Met Ala Asn Leu Ser Tyr Trp Leu Leu Ala Leu Phe Val Ala Met Trp
 1 5 10 15
 Thr Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn
 20 25 30
 Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg
 35 40 45
 Tyr Pro Pro Gln Gly Gly Gly Thr Trp Gly Gln Pro His Gly Gly Gly
 50 55 60
 Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
 65 70 75 80
 Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His
 85 90 95

Asn Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met
 100 105 110

Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr
 115 120 125

Met Leu Gly Ser Ala Met Ser Arg Pro Met Met His Phe Gly Asn Asp
 130 135 140

Trp Glu Asp Arg Tyr Tyr Arg Glu Asn Met Asn Arg Tyr Pro Asn Gln
 145 150 155 160

Val Tyr Tyr Arg Pro Val Asp Gln Tyr Asn Asn Gln Asn Asn Phe Val
 165 170 175

His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Tyr
 180 185 190

Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Ile Met Glu Arg
 195 200 205

Val Val Glu Gln Met Cys Thr Thr Gln Tyr Gln Lys Glu Ser Gln Ala
 210 215 220

Tyr Tyr Asp Gly Arg Arg Ser Ser Ala Val Leu Phe Ser Ser Pro Pro
 225 230 235 240

Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Met Val Gly
 245 250

<210> 11
 <211> 258
 <212> PRT
 <213> Mink

<400> 11

Met Val Lys Ser His Ile Gly Ser Trp Leu Leu Val Leu Phe Val Ala
 1 5 10 15

Thr Trp Ser Asp Ile Gly Phe Cys Lys Lys Arg Pro Lys Pro Gly Gly
 20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly

35	40	45
Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His		
50	55	60
Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His		
65	70	75
Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly		
85	90	95
Gly Gly Ser His Gly Gln Trp Gly Lys Pro Ser Lys Pro Lys Thr Asn		
100	105	110
Met Lys His Val Ala Gly Ala Ala Ala Gly Ala Val Val Gly Gly		
115	120	125
Leu Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His		
130	135	140
Phe Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg		
145	150	155
Tyr Pro Asn Gln Val Tyr Tyr Lys Pro Val Asp Gln Tyr Ser Asn Gln		
165	170	175
Asn Asn Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr		
180	185	190
Val Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Met Lys		
195	200	205
Ile Met Glu Arg Val Val Glu Gln Met Cys Val Thr Gln Tyr Gln Arg		
210	215	220
Glu Ser Glu Ala Ala Tyr Tyr Gln Arg Gly Ala Ser Ala Ile Leu Phe		
225	230	235
Ser Pro Pro Pro Val Ile Leu Leu Ile Ser Leu Leu Ile Leu Leu Ile		
245	250	255
Val Gly		

<210> 12
 <211> 253
 <212> PRT
 <213> Gorilla

<400> 12

Met Ala Asn Leu Gly Cys Trp Met Leu Val Leu Phe Val Ala Thr Trp
 1 5 10 15

Ser Asp Leu Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn
 20 25 30

Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg
 35 40 45

Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
 50 55 60

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
 65 70 75 80

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His
 85 90 95

Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met
 100 105 110

Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr
 115 120 125

Met Leu Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser Asp
 130 135 140

Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln
 145 150 155 160

Val Tyr Tyr Arg Pro Met Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val
 165 170 175

His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr
 180 185 190

Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg
 195 200 205

Val Val Glu Gln Met Cys Ile Thr Gln Tyr Glu Arg Glu Ser Gln Ala
 210 215 220

Tyr Tyr Gln Arg Gly Ser Ser Met Val Leu Phe Ser Ser Pro Pro Val
 225 230 235 240

Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
 245 250

<210> 13
 <211> 254
 <212> PRT
 <213> Chimpanzee

<400> 13

Met Ala Asn Leu Gly Cys Trp Met Leu Val Leu Phe Val Ala Thr Trp
 1 5 10 15

Ser Asp Leu Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn
 20 25 30

Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg
 35 40 45

Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
 50 55 60

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
 65 70 75 80

Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His
 85 90 95

Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met
 100 105 110

Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr
 115 120 125

Met Leu Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser Asp
 130 135 140

Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln
 145 150 155 160

Val Tyr Tyr Arg Pro Met Asp Gln Tyr Ser Ser Gln Asn Asn Phe Val
 165 170 175

His Asp Cys Val Asn Ile Thr Ile Lys Gln His Thr Val Thr Thr Thr
 180 185 190

Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met Met Glu Arg
 195 200 205

Val Val Glu Gln Met Cys Ile Thr Gln Tyr Glu Arg Glu Ser Gln Ala
 210 215 220

Tyr Tyr Gln Arg Gly Ser Ser Met Val Leu Phe Ser Ser Pro Pro Val
 225 230 235 240

Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Leu Ile Val Gly
 245 250

<210> 14
 <211> 263
 <212> PRT
 <213> Greater kudu

<400> 14

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala
 1 5 10 15

Met Trp Ser Asp Val Ala Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
 20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
 35 40 45

Gly Asn Arg Tyr Pro Ser Gln Gly Gly Gly Gly Trp Gly Gln Pro His
 50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
 65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
85 90 95

Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys
100 105 110

Pro Ser Lys Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala Ala
115 120 125

Gly Ala Val Val Gly Gly Leu Gly Gly Tyr Met Leu Gly Ser Ala Met
130 135 140

Ser Arg Pro Leu Ile His Phe Gly Ser Asp Tyr Glu Asp Arg Tyr Tyr
145 150 155 160

Arg Glu Asn Met Tyr Arg Tyr Pro Asn Gln Val Tyr Tyr Arg Pro Val
165 170 175

Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val His Asp Val Asn Asn Ile
180 185 190

Thr Val Lys Gln His Thr Val Thr Thr Thr Lys Gly Glu Asn Phe
195 200 205

Thr Glu Thr Asp Ile Lys Met Met Glu Arg Val Val Glu Gln Met Cys
210 215 220

Ile Thr Gln Tyr Gln Arg Glu Ser Glu Ala Tyr Tyr Gln Arg Gly Ala
225 230 235 240

Ser Val Ile Leu Phe Ser Ser Pro Pro Val Ile Leu Leu Ile Ser Phe
245 250 255

Leu Ile Phe Leu Ile Val Gly
260

<210> 15
<211> 255
<212> PRT
<213> Camel

<400> 15

Met Val Lys Ser His Met Gly Ser Trp Ile Leu Val Leu Phe Val Val
1 5 10 15

Thr Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
 20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
 35 40 45

Gly Tyr Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
 50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
 65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly
 85 90 95

Gly Ala His Gly Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Ser Met
 100 105 110

Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly Leu
 115 120 125

Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe
 130 135 140

Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr
 145 150 155 160

Pro Asn Gln Val Tyr Tyr Lys Pro Val Asp Gln Tyr Ser Asn Gln Asn
 165 170 175

Ser Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val
 180 185 190

Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys Met
 195 200 205

Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu
 210 215 220

Tyr Gln Ala Ser Tyr Gly Arg Gly Ala Ser Val Ile Phe Ser Ser Pro
 225 230 235 240

Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
 245 250 255

<210> 16
 <211> 257
 <212> PRT
 <213> Pig

<400> 16

Met Val Lys Ser His Ile Gly Gly Trp Ile Leu Val Leu Phe Val Ala
 1 5 10 15

Ala Trp Ser Asp Ile Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
 20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
 35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
 50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
 65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly
 85 90 95

Gly Gly Ser His Gly Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn
 100 105 110

Met Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala Val Val Gly Gly
 115 120 125

Leu Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His
 130 135 140

Phe Gly Ser Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met His Arg
 145 150 155 160

Tyr Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Gln Tyr Ser Asn Gln
 165 170 175

Asn Ser Phe Val His Asp Cys Val Asn Ile Thr Val Lys Glu His Thr

180 185 190
 Val Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Val Lys
 195 200 205
 Met Ile Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Lys
 210 215 220
 Glu Tyr Glu Ala Tyr Ala Gln Arg Gly Ala Ser Val Ile Leu Phe Ser
 225 230 235 240
 Ser Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Leu Phe Leu Ile Val
 245 250 255

Gly

<210> 17
 <211> 253
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> homolog of full-length human prion

 <220>
 <221> MISC_FEATURE
 <222> (1)..(253)
 <223> where Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly or Ser

<400> 17

Met Ala Asn Leu Gly Cys Trp Met Leu Val Leu Phe Val Ala Thr Trp
 1 5 10 15
 Ser Asp Leu Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn
 20 25 30
 Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg
 35 40 45
 Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly
 50 55 60
 Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly

```
<210> 18
<211> 264
<212> PRT
<213> Artificial Sequence

<220>
<223> homolog of bovine full-length prion

<220>
<221> MISC FEATURE
```

<222> (1)..(264)

<223> where Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<400> 18

Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala
 1 5 10 15

Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
 20 25 30

Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
 35 40 45

Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
 50 55 60

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
 65 70 75 80

Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
 85 90 95

Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys
 100 105 110

Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala
 115 120 125

Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala
 130 135 140

Met Ser Arg Pro Leu Ile His Phe Gly Ser Asp Tyr Glu Asp Arg Tyr
 145 150 155 160

Tyr Arg Glu Asn Met His Arg Tyr Pro Asn Gln Val Tyr Tyr Arg Pro
 165 170 175

Val Asp Gln Tyr Ser Asn Gln Asn Asn Phe Val His Asp Cys Val Asn
 180 185 190

Ile Thr Val Lys Glu His Thr Val Thr Thr Thr Thr Lys Gly Glu Asn
 195 200 205

Phe Thr Glu Thr Asp Ile Lys Met Met Glu Arg Val Val Glu Gln Met
 210 215 220

Cys Ile Thr Gln Tyr Gln Arg Glu Ser Gln Ala Tyr Tyr Gln Arg Gly
 225 230 235 240

Ala Ser Val Ile Leu Phe Ser Ser Pro Pro Val Ile Leu Leu Ile Ser
 245 250 255

Phe Leu Ile Phe Leu Ile Val Gly
 260

<210> 19
 <211> 65
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> homolog of fragment of human prion

<220>
 <221> MISC_FEATURE
 <222> (1)..(10)
 <223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>
 <221> MISC_FEATURE
 <222> (42)..(51)
 <223> where Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<400> 19

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Gly Gly Gly Thr
 1 5 10 15

His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His
 20 25 30

Met Ala Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly
 35 40 45

Xaa Xaa Xaa Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser
 50 55 60

Asp
65

<210> 20
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> homolog of fragment of human prion

<220>
<221> MISC_FEATURE
<222> (1)..(10)
<223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>
<221> MISC_FEATURE
<222> (42)..(106)
<223> where Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<400> 20

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Gly Gly Gly Thr
1 5 10 15

His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His
20 25 30

Met Ala Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly
35 40 45

Xaa Xaa Xaa Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser
50 55 60

Asp Gly Gln Gly Gly Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys
65 70 75 80

Pro Lys Thr Asn Met Lys His Met Ala Gly Ala Ala Ala Ala Gly Ala
85 90 95

Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser Arg
100 105 110

Pro Ile Ile His Phe Gly Ser Asp
 115 120

<210> 21
 <211> 65
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> homolog of fragment of human prion

<220>
 <221> MISC_FEATURE
 <222> (32)..(41)
 <223> where Xaa is Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<220>
 <221> MISC_FEATURE
 <222> (56)..(65)
 <223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 21

Gly Gln Gly Gly Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys Pro
 1 5 10 15

Lys Thr Asn Met Lys His Met Ala Gly Ala Ala Ala Ala Gly Ala Xaa
 20 25 30

Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser Arg Pro
 35 40 45

Ile Ile His Phe Gly Ser Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 50 55 60

Xaa
 65

<210> 22
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> homolog of fragment of human prion

<220>
 <221> MISC_FEATURE

<222> (32)..(96)

<223> where Xaa is Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<220>

<221> MISC_FEATURE

<222> (111)..(120)

<223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 22

Gly Gln Gly Gly Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys Pro
1 5 10 15

Lys Thr Asn Met Lys His Met Ala Gly Ala Ala Ala Ala Gly Ala Xaa
20 25 30

Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser Arg Pro
35 40 45

Ile Ile His Phe Gly Ser Asp Gly Gln Gly Gly Gly Thr His Ser Gln
50 55 60

Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Met Ala Gly
65 70 75 80

Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa
85 90 95

Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser Asp Xaa Xaa
100 105 110

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
115 120

<210> 23

<211> 75

<212> PRT

<213> Artificial Sequence

<220>

<223> homolog of fragment of human prion

<220>

<221> MISC_FEATURE

<222> (1)..(10)

<223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

idues

<220>

<221> MISC_FEATURE

<222> (42)..(51)

<223> where Xaa is Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<220>

<221> MISC_FEATURE

<222> (66)..(75)

<223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 23

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Gly Gly Gly Thr
1 5 10 15

His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His
20 25 30

Met Ala Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly
35 40 45

Xaa Xaa Xaa Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser
50 55 60

Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
65 70 75

<210> 24

<211> 130

<212> PRT

<213> Artificial Sequence

<220>

<223> homolog of fragment of human prion

<220>

<221> MISC_FEATURE

<222> (1)..(10)

<223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>

<221> MISC_FEATURE

<222> (42)..(106)

<223> where Xaa is Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<220>

<221> MISC_FEATURE

<222> (121)..(130)

<223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 24

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Gly Gly Gly Thr
 1 5 10 15

His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His
 20 25 30

Met Ala Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly
 35 40 45

Xaa Xaa Xaa Gly Ser Ala Met Ser Arg Pro Ile Ile His Phe Gly Ser
 50 55 60

Asp Gly Gln Gly Gly Gly Thr His Ser Gln Trp Asn Lys Pro Ser Lys
 65 70 75 80

Pro Lys Thr Asn Met Lys His Met Ala Gly Ala Ala Ala Ala Gly Ala
 85 90 95

Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser Arg
 100 105 110

Pro Ile Ile His Phe Gly Ser Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 115 120 125

Xaa Xaa
 130

<210> 25

<211> 73

<212> PRT

<213> Artificial Sequence

<220>

<223> homolog of fragment of bovine prion

<220>

<221> MISC_FEATURE

<222> (1)..(10)
 <223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>
 <221> MISC_FEATURE
 <222> (50)..(59)
 <223> where Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser.

<400> 25

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Pro His Gly Gly
 1 5 10 15

Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys Pro Ser
 20 25 30

Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala Ala Gly
 35 40 45

Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser
 50 55 60

Arg Pro Leu Ile His Phe Gly Asn Asp
 65 70

<210> 26
 <211> 136
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> homolog of fragment of bovine prion

<220>
 <221> MISC_FEATURE
 <222> (1)..(10)
 <223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>
 <221> MISC_FEATURE
 <222> (50)..(122)
 <223> where Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<400> 26

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Pro His Gly Gly
 1 5 10 15

Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys Pro Ser
 20 25 30

Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala Gly
 35 40 45

Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser
 50 55 60

Arg Pro Leu Ile His Phe Gly Asn Asp Gly Gln Pro His Gly Gly Gly
 65 70 75 80

Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys Pro Ser Lys
 85 90 95

Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala Ala Gly Ala
 100 105 110

Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser Arg
 115 120 125

Pro Leu Ile His Phe Gly Asn Asp
 130 135

<210> 27

<211> 73

<212> PRT

<213> Artificial Sequence

<220>

<223> homolog of fragment of bovine prion

<220>

<221> MISC_FEATURE

<222> (40)..(49)

<223> where Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<220>

<221> MISC_FEATURE

<222> (64)..(73)

<223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 27

Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly
 1 5 10 15

Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala
 20 25 30

Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa
 35 40 45

Xaa Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe Gly Asn Asp Xaa
 50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 65 70

<210> 28

<211> 136

<212> PRT

<213> Artificial Sequence

<220>

<223> homolog of fragment of bovine prion

<220>

<221> MISC_FEATURE

<222> (40)..(112)

<223> where Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<220>

<221> MISC_FEATURE

<222> (127)..(136)

<223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 28

Gly Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly
 1 5 10 15

Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala
 20 25 30

Gly Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa

35

40

45

Xaa Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe Gly Asn Asp Gly
 50 55 60

Gln Pro His Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln
 65 70 75 80

Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala Gly
 85 90 95

Ala Ala Ala Ala Gly Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa
 100 105 110

Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe Gly Asn Asp Xaa Xaa
 115 120 125

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 130 135

<210> 29

<211> 83

<212> PRT

<213> Artificial Sequence

<220>

<223> homolog of fragment of bovine prion

<220>

<221> MISC_FEATURE

<222> (1)..(10)

<223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>

<221> MISC_FEATURE

<222> (50)..(59)

<223> where Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Ly, Gly, or Ser

<220>

<221> MISC_FEATURE

<222> (74)..(83)

<223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 29

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Pro His Gly Gly
 1 5 10 15

Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys Pro Ser
 20 25 30

Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala Ala Gly
 35 40 45

Ala Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa Gly Ser Ala Met Ser
 50 55 60

Arg Pro Leu Ile His Phe Gly Asn Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 65 70 75 80

Xaa Xaa Xaa

<210> 30
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> homolog of fragment of bovine prion

<220>
 <221> MISC_FEATURE
 <222> (1)..(10)
 <223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<220>
 <221> MISC_FEATURE
 <222> (50)..(122)
 <223> where Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<220>
 <221> MISC_FEATURE
 <222> (137)..(146)
 <223> where Xaa is an optional poly-Lys or poly-Asp segment of 4-10 residues

<400> 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Pro His Gly Gly

[illegible]

```
<210> 31
<211> 199
<212> PRT
<213> Escherichia coli
```

<400> 31

Phe Val Thr His Leu Asn Arg Asn Lys Thr Pro Ile His Glu Lys Val
1 5 10 15

Phe His Phe Asn Gln Glu Arg Glu Asp Gly Ile Ser Val Glu Val Ala
20 25 30

Met Gln Trp Asn Asp Gly Phe Gln Glu Asn Ile Tyr Cys Phe Thr Asn
35 40 45

Asn Ile Pro Gln Arg Asp Gly Gly Thr His Leu Ala Gly Phe Arg Gly
 50 55 60

Ala Leu Thr Arg Thr Leu Asn Asn Tyr Met Asp Lys Glu Gly Phe Ser
 65 70 75 80

Lys Lys Ala Gln Ala Ala Thr Ser Gly Asp Asp Ala Arg Glu Gly Leu
 85 90 95

Thr Ala Val Val Ser Val Lys Val Pro Asp Pro Lys Phe Ser Ser Gln
 100 105 110

Thr Lys Asp Lys Leu Val Ser Ser Glu Val Lys Ser Ala Val Glu Ser
 115 120 125

Ala Met Asn Glu Lys Leu Ala Asp Phe Leu Ala Glu Asn Pro Ser Glu
 130 135 140

Ala Lys Asn Val Cys Ser Lys Ile Ile Asp Ala Ala Arg Ala Arg Glu
 145 150 155 160

Ala Ala Arg Lys Ala Arg Glu Met Thr Arg Arg Lys Gly Ala Leu Asp
 165 170 175

Leu Ala Gly Leu Pro Gly Lys Leu Ala Asp Cys Gln Glu Lys Asp Pro
 180 185 190

Ala Leu Ser Glu Leu Tyr Ile
 195

<210> 32

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> homolog of fragment of human or bovine prion

<220>

<221> MISC_FEATURE

<222> (1)..(10)

<223> where Xaa is Val, Val, Tyr, Met, Leu, Pro, Asp, Glu, Lys, Gly, or Ser

<400> 32

Xaa Xaa Gly Gly Leu Gly Gly Xaa Xaa Xaa
1 5 10